

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P840174

Luminaire Tested: **LD4C35D010 EU4359040 4LBCSSQMMS**

Issue Date: 5/25/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P840174
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209253)
Test Lab: INNOVATION CENTER
Issue Date: 5/25/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C35D010 EU4359040 4LBCSSQMMS
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

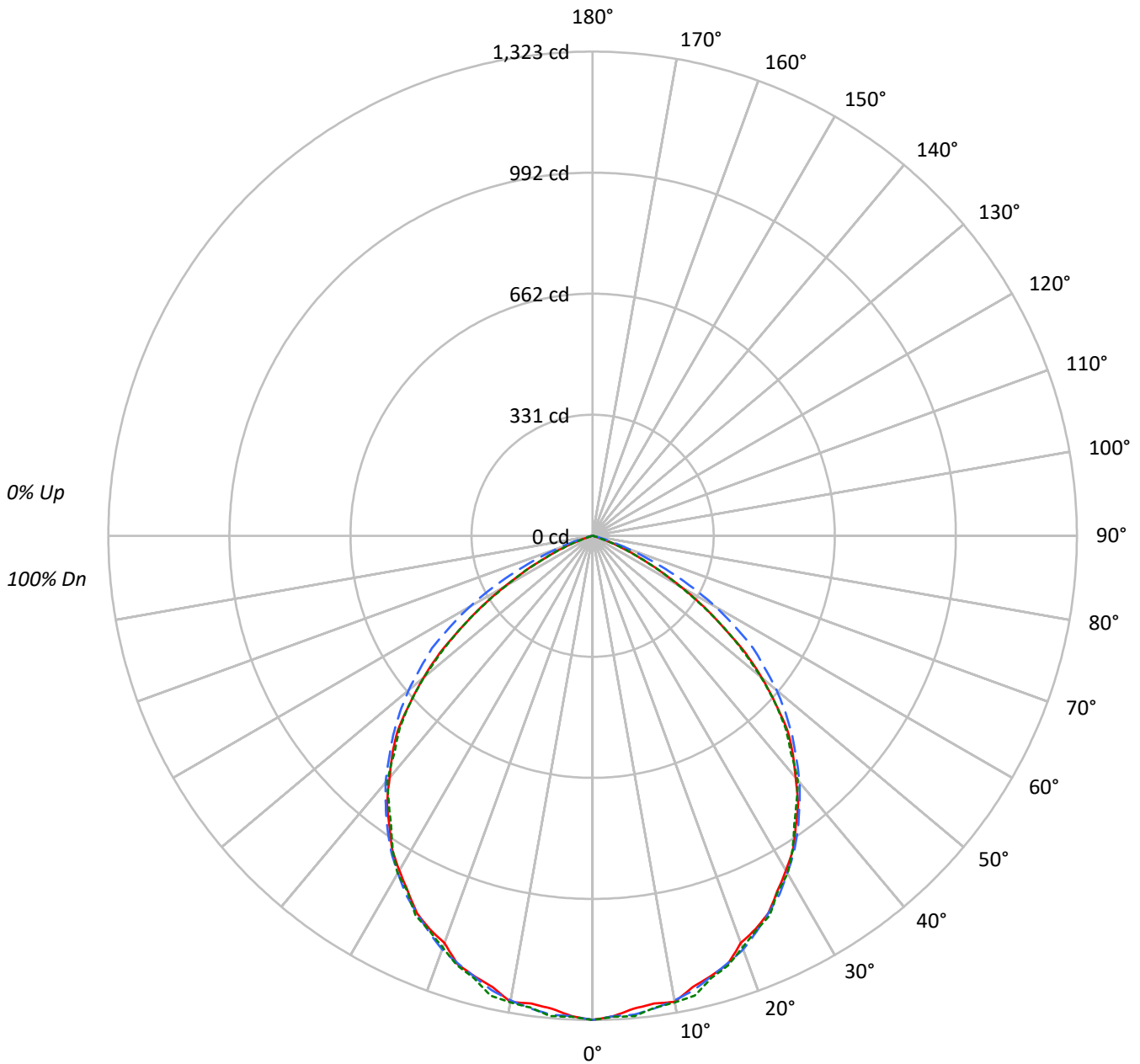
Lumens per Lamp: N/A
Luminaire Lumens: 2826.0 lumens
Efficiency: N/A
Efficacy: 70.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
Input Voltage (V):
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P840174

CATALOG NUMBER: LD4C35D010 EU4359040 4LBCSSQMMS

Luminous Intensity Polar Plot





TEST NUMBER: P840174

CATALOG NUMBER: LD4C35D010 EU4359040 4LBCSSQMMS

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89								
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77								
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67								
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59								
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52								
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46								
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33								
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	127645	127645	127645
5°	125585	127222	127590
10°	126675	126303	126851
15°	124456	124636	125016
20°	121564	123485	122910
25°	121039	121039	121837
30°	117666	118502	118714
35°	113987	115106	113103
40°	108638	110767	109822
45°	102820	105139	101796
50°	90546	98442	89991
55°	73329	90084	73665
60°	53667	74702	52586
65°	32603	53197	31758
70°	12723	28635	12187
75°	1417	7717	1417
80°	1056	1056	1056
85°	0	0	0



TEST NUMBER: P840174

CATALOG NUMBER: LD4C35D010 EU4359040 4LBCSSQMMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.9	4.4
10°-20°	353.4	12.5
20°-30°	524.3	18.6
30°-40°	607.5	21.5
40°-50°	582.5	20.6
50°-60°	428.3	15.2
60°-70°	185.0	6.5
70°-80°	20.0	0.7
80°-90°	0.3	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1002.5	35.5
0°-40°	1610.1	57.0
0°-60°	2620.8	92.7
0°-90°	2826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2826.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1323	1323	1323	1323	1323	
5°	1297	1310	1314	1315	1317	124
15°	1246	1253	1248	1250	1252	351
25°	1137	1135	1137	1139	1144	521
35°	968	973	977	975	960	605
45°	754	755	770	759	746	573
55°	436	481	536	479	438	392
65°	143	178	233	177	139	147
75°	4	6	21	4	4	12
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P840174

CATALOG NUMBER: LD4C35D010 EU4359040 4LBCSSQMMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9
2.5°	1313.5	1328.5	1330.5	1321.0	1317.3	1311.7	1324.8	1315.4	1319.2	1315.4	1313.5
5°	1296.6	1313.5	1315.4	1315.4	1311.7	1309.8	1315.4	1313.5	1311.7	1307.9	1313.5
7.5°	1289.1	1298.5	1307.9	1296.6	1302.2	1300.4	1313.5	1307.9	1306.0	1306.0	1302.2
10°	1292.9	1291.0	1298.5	1287.2	1291.0	1287.2	1298.5	1298.5	1294.7	1291.0	1289.1
12.5°	1262.8	1277.8	1277.8	1275.9	1272.2	1266.5	1277.8	1285.4	1274.0	1274.0	1272.2
15°	1245.9	1249.6	1251.5	1251.5	1249.6	1253.4	1259.0	1251.5	1253.4	1244.0	1247.7
17.5°	1227.1	1219.6	1225.2	1221.4	1223.3	1227.1	1234.6	1234.6	1223.3	1221.4	1225.2
20°	1183.9	1206.4	1208.3	1197.0	1198.9	1198.9	1212.1	1200.8	1208.3	1198.9	1202.6
22.5°	1163.2	1178.2	1180.1	1165.1	1174.4	1163.2	1176.3	1159.4	1178.2	1165.1	1170.7
25°	1136.9	1135.0	1140.6	1133.1	1135.0	1135.0	1144.4	1136.9	1142.5	1135.0	1136.9
27.5°	1093.7	1108.7	1106.8	1099.3	1103.0	1101.2	1120.0	1099.3	1110.6	1101.2	1105.0
30°	1056.1	1069.2	1065.5	1058.0	1058.0	1052.3	1073.0	1067.3	1065.5	1065.5	1063.6
32.5°	1018.5	1020.4	1016.6	1018.5	1020.4	1012.9	1029.8	1022.2	1020.4	1022.2	1024.2
35°	967.7	967.7	971.5	965.9	973.4	973.4	988.4	979.0	977.2	971.5	977.2
37.5°	922.6	917.0	918.9	918.9	922.6	926.4	933.9	930.2	930.2	924.6	928.3
40°	862.5	858.8	864.4	864.4	870.0	870.0	877.6	873.8	879.4	879.4	879.4
42.5°	809.9	809.9	806.2	811.8	813.7	811.8	825.0	823.1	825.0	821.2	823.1
45°	753.5	753.5	749.8	747.9	757.3	755.4	770.5	764.8	772.3	768.5	770.5
47.5°	676.5	685.9	680.2	685.9	697.2	699.1	708.4	704.7	712.2	706.6	714.1
50°	603.2	603.2	608.8	616.3	627.6	629.5	640.8	648.3	652.1	653.9	655.8
52.5°	526.2	524.3	529.9	539.3	548.7	556.2	567.5	578.8	586.3	597.6	591.9
55°	435.9	439.7	445.4	456.6	471.7	481.0	490.5	505.5	518.7	524.3	535.5
57.5°	358.9	355.1	358.9	373.9	390.9	398.4	411.6	426.6	445.4	456.6	460.4
60°	278.1	280.0	283.8	296.9	310.1	321.3	327.0	351.4	368.3	379.6	387.1
62.5°	204.9	208.6	212.4	223.6	236.8	246.2	255.5	276.2	291.3	302.5	310.1
65°	142.8	144.7	150.3	155.9	169.1	178.5	186.0	202.9	218.0	227.4	233.0
67.5°	88.3	90.2	93.9	101.5	110.9	118.4	125.9	137.2	150.3	159.7	161.6
70°	45.1	47.0	48.8	54.5	62.0	65.8	71.4	80.8	90.2	97.7	101.5
72.5°	15.0	15.0	16.9	20.7	24.5	28.2	30.1	39.5	47.0	50.8	52.6
75°	3.8	3.8	3.8	3.8	3.8	5.7	5.7	11.3	15.0	18.8	20.7
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.8	3.8
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P840174

CATALOG NUMBER: LD4C35D010 EU4359040 4LBCSSQMMS

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9	1322.9
2.5°	1322.9	1319.2	1317.3	1319.2	1319.2	1317.3	1322.9	1330.5	1339.8	1315.4
5°	1321.0	1317.3	1321.0	1309.8	1315.4	1311.7	1319.2	1317.3	1324.8	1317.3
7.5°	1315.4	1307.9	1309.8	1304.2	1311.7	1302.2	1307.9	1319.2	1311.7	1300.4
10°	1296.6	1292.9	1306.0	1287.2	1283.5	1291.0	1306.0	1294.7	1291.0	1294.7
12.5°	1277.8	1277.8	1283.5	1268.4	1270.3	1274.0	1281.5	1274.0	1277.8	1287.2
15°	1257.2	1253.4	1262.8	1251.5	1249.6	1245.9	1253.4	1253.4	1257.2	1251.5
17.5°	1232.7	1227.1	1227.1	1223.3	1221.4	1230.9	1234.6	1236.5	1238.4	1230.9
20°	1202.6	1200.8	1206.4	1200.8	1202.6	1204.6	1204.6	1200.8	1217.7	1197.0
22.5°	1170.7	1176.3	1168.8	1165.1	1168.8	1172.6	1172.6	1174.4	1170.7	1166.9
25°	1138.8	1142.5	1144.4	1133.1	1138.8	1133.1	1146.3	1148.1	1140.6	1144.4
27.5°	1110.6	1105.0	1103.0	1095.5	1099.3	1097.5	1099.3	1099.3	1110.6	1095.5
30°	1067.3	1061.7	1063.6	1058.0	1059.8	1058.0	1059.8	1059.8	1067.3	1065.5
32.5°	1026.0	1020.4	1022.2	1016.6	1016.6	1018.5	1014.7	1014.7	1020.4	1016.6
35°	986.5	973.4	975.2	973.4	975.2	967.7	967.7	965.9	969.6	960.2
37.5°	930.2	924.6	922.6	920.8	922.6	918.9	922.6	917.0	922.6	915.1
40°	879.4	875.6	877.6	866.3	866.3	868.1	864.4	862.5	864.4	871.9
42.5°	828.7	821.2	817.5	813.7	815.5	809.9	808.0	804.3	808.0	800.5
45°	768.5	768.5	766.7	757.3	759.2	759.2	751.7	744.2	746.0	746.0
47.5°	714.1	710.3	708.4	699.1	697.2	695.3	687.7	682.1	682.1	676.5
50°	653.9	650.2	644.6	635.1	631.4	620.1	614.5	607.0	599.5	599.5
52.5°	597.6	584.4	576.9	561.8	556.2	550.6	535.5	529.9	524.3	518.7
55°	529.9	518.7	503.6	486.7	479.2	469.8	454.7	443.5	435.9	437.9
57.5°	464.2	445.4	430.3	407.8	398.4	392.7	377.7	362.6	355.1	355.1
60°	383.3	368.3	349.5	328.8	321.3	312.0	293.1	283.8	278.1	272.5
62.5°	306.3	295.0	278.1	251.8	246.2	236.8	223.6	212.4	206.7	206.7
65°	229.2	218.0	202.9	184.2	176.6	169.1	157.9	146.6	140.9	139.1
67.5°	161.6	148.4	135.3	120.3	114.6	110.9	99.6	92.1	88.3	86.4
70°	97.7	90.2	80.8	69.5	63.9	60.1	52.6	47.0	45.1	43.2
72.5°	50.8	45.1	37.6	30.1	26.3	22.5	18.8	15.0	13.2	13.2
75°	18.8	15.0	9.4	5.7	3.8	3.8	3.8	3.8	3.8	3.8
77.5°	3.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°









(END OF REPORT)